

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/709,162	11/10/2000	Guillermo J. Tearney	187718/US - 475387-00245	3219	
30873	7590 11/20/2006		EXAM	EXAMINER	
DORSEY & WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT			KISH, JAMES M		
250 PARK AVENUE			ART UNIT	PAPER NUMBER	
NEW YORK,	NY 10177		. 3737		

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
	09/709,162	TEARNEY ET AL.	
Office Action Summary	Examiner	Art Unit	
	James Kish	3737	
The MAILING DATE of this communication a	opears on the cover sheet v	vith the correspondence address	ss
Period for Reply		10.1T.1(0) 0.D.T.11.DT\((00) F	> 4 > 40°
A SHORTENED STATUTORY PERIOD FOR REP WHICHEVER IS LONGER, FROM THE MAILING I - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory perior - Failure to reply within the set or extended period for reply will, by statu. Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUN 1.136(a). In no event, however, may a d will apply and will expire SIX (6) MO ute, cause the application to become A	ICATION. reply be timely filed NTHS from the mailing date of this commu	
Status			
1) Responsive to communication(s) filed on			
	is action is non-final.		
3) Since this application is in condition for allow	ance except for formal ma	tters, prosecution as to the me	erits is
closed in accordance with the practice under	Ex parte Quayle, 1935 C.	D. 11, 453 O.G. 213.	
Disposition of Claims			
4)⊠ Claim(s) <u>68-136</u> is/are pending in the applica	ation.		
4a) Of the above claim(s) is/are withdr	awn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>68-136</u> is/are rejected.		•	
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and	or election requirement.		
Application Papers	•		
9) The specification is objected to by the Examir			
10)☐ The drawing(s) filed on is/are: a)☐ ad			
Applicant may not request that any objection to the			
Replacement drawing sheet(s) including the corre			
11) The oath or declaration is objected to by the I	Examiner. Note the attache	ed Office Action or form PTO-	152.
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreignal All b) Some * c) None of:	gn priority under 35 U.S.C.	§ 119(a)-(d) or (f).	
1. Certified copies of the priority docume	nts have been received.		
2. Certified copies of the priority docume	nts have been received in	Application No	
Copies of the certified copies of the pr	iority documents have bee	n received in this National Sta	age .
application from the International Bure	•		
* See the attached detailed Office action for a li	st of the certified copies no	ot received.	
Attachment(s) 1) Notice of References Cited (PTO-892)	4) Interview	Summary (PTO-413)	•
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper N	o(s)/Mail Date	
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date \(\frac{\sqrt{11}/\cdot}{2}, \frac{\sqrt{18}/\cdot}{2} \)	5) Notice o 6) Other: _	f Informal Patent Application	

Application/Control Number: 09/709,162

Art Unit: 3737

DETAILED ACTION

Response to Amendment

Claims 1-67 have been cancelled and therefore, the rejections on said claims have been withdrawn. However, there are new grounds of rejection for newly added claims 68-136 as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 68-136 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boppart et al. (US Patent No. 6,485,413) in view of Williams (US Patent No. 5,801,826). Boppart discloses an imaging system for performing forward scanning imaging for application to therapeutic and diagnostic devices. There is a lens arrangement as can be seen in Figure 2, items 26 and 30. Also, as Examiner Mercader has previous demonstrated the interferometer of Boppart is itself a dispersive element as evidenced by Williams (see column 3, line 65 through column 4, line 8 of Williams). The interferometer of Boppart may contain free-space optics and/or optical fibers (column 5, lines 14-15). The computer controls the interaction between transverse and depth scanning to generate 1, 2 or 3 dimensional images (column 5, lines 31-43). In the reference arm scanning OCT embodiment, a broad-bandwidth optical source is used

Application/Control Number: 09/709,162

Art Unit: 3737

and coupled to the interferometer (column 5, lines 47-49). In another embodiment of the optical imaging system, the scanning mechanism includes counter rotating prisms or rotating offset lenses that generate arbitrary scanning patterns on a sample (column 2, lines 62-65). The imaging system described has application to hand-held probes, laparoscopes, endoscopes, catheters, tissue probes, needles, and other instruments either as "stand-alone" implementation or as a new implementation used in conjunction within, or external to, an existing instrument (column 2, lines 30-38). Boppart discusses a method to cover a large area of the structure being imaged at column 32, lines 45-54. It would have been obvious to one skilled in the art at the time the invention was made that an interferometer with a detector is the equivalent of a dispersive element with focusing capability on impringement spots.

With respect to claims 70-72, 75-86, 90-106, 111, 114-115, 119, 121-124, 126-129 and 132-135, Examiner notes that these claims were rejected in the previous Office Action under Boppart in view of Williams and therefore, that rejection still stands.

Conclusion

As previously presented:

Lennox et al.

5,454,807

Benja-Athon

5,843,052

Tearney et al.

6,134,003

Application/Control Number: 09/709,162 Page 4

Art Unit: 3737

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Kish whose telephone number is 571-272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri...

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK

ELENI MANTIS MERCADER SUPERVISORY PATENT EXAMINER